CAMMENGA AND ASSOCIATES, LLC

2011 Bailey St.
Dearborn, MI 48124
Ph. (313) 914-7160
Fax (313) 914-7153

August 31, 2011

Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

License # 21-26460-02E

To Whom It May Concern:

Following is an amendment request for our E-License #21-26460-02E. Cammenga & Associates, LLC proposes to install Tritium filled vials into a new design of Protractor Compass as described in the enclosed package.

A separate request package was sent to the address above for the amendment to the SS&D Registry # NR-0210-D-101-E.

Sincerely,

Deborah Spykerman

CAMMENGA AND ASSOCIATES, LLC

Deborah Spykerman
Radiation Safety Officer

Enclosures:
Amendment application for Exempt License, NRC Form 313
Enclosure 1 - Submission of items 5 and 6 of amendment application, NRC Form 313
Enclosure 2 - Current exemption license
Enclosure 3 - Discussion
Enclosure 4 - Compass comparison
Enclosure 5 - Prototype testing results
Attachment 1 - Drawings of Compass

NRC FORM 313 (3-2009)
10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 **EXPIRES: 3/31/2012**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRLCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIEL BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND
ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER **21-26460-02E**
- [ ] C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*

Cammenga & Associates, LLC
2011 Bailey St.
Dearborn, MI 48124

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Refer to Box 2

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Deborah Spykerman

TELEPHONE NUMBER

(313) 914-7160

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maiximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY **NA** AMOUNT ENCLOSED $ **0.00**

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
Deborah Spykerman, Radiation Safety Officer	Deborah Spykerman	**08/31/2011**

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	

Enclosure 1

CAMMENGA AND ASSOCIATES, LLC

2011 Bailey St.
Dearborn, MI 48124
Ph. (313) 914-7160
Fax (313) 914-7153

August 31, 2011

#5. RADIOACTIVE MATERIAL

Radioactive Material: Tritium
Mass: 3
Physical Form Sealed Sources, Gas

1. Specifications

A. H-3 (tritium) Vials
The H-3 is contained in small laser-sealed glass vials coated with phosphorescent material coating the vials interior walls. The H-3 vials are used as radio-luminescent light sources for viewing the compass under dark conditions. These vials are attached to the compass with silicone (or like) adhesive. Specifications for the vials are as follows; each compass would contain 3 vials:

- 1 unit - vial model #400/3 (vial contains 50 millicuries H-3)
- 2 units - vial model #400/3 (each vial shall contain 25 millicuries H-3)
- 3 units – vial model #400/1 (vial contains 5 millicuries H-3)

The maximum total H-3 activity per compass will not exceed 115 millicuries. New vials will be purchased using same procedures as current and same vendor as current - mb microtec, A.G., Bern, Switzerland or other approved supplier.

B. Maximum H-3 possession limit for this license would remain 14,400 curies.

#6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

The licensed material (H-3) will be incorporated into the Compass for distribution to person(s) exempt from licensing. The H-3 vials will be received, handled, and used within the manufacturing process, in accordance with the guidelines found in the Manufacturing and Distribution NRC license Number 21-26460-02E for Cammenga and Associates, LLC, 2011 Bailey St. Dearborn, MI 48124. The finished product will be checked for quality, checked for safety, handled, and stored per our current safety guidelines found within MIL-PRF-10436N.

NRC FORM 374 PAGE 1 OF 2 PAGES

U.S. NUCLEAR REGULATORY COMMISSION Amendment No. 09

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Cammenga & Associates	In accordance with the letter dated, September 1, 2010,
	3. License number 21-26460-02E is amended in its entirety to read as follows:
2. 100 Aniline Avenue Holland, MI 49424	4. Expiration date July 31, 2013
	5. Docket No. 030-33020 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Hydrogen-3	A. Glass Sealed Vials (MB Microtec Models 400/6, 400/3, 400/1)	A. Not Applicable (See Condition 11)

9. Authorized use:

Pursuant to 10 CFR Part 32.22, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material," the licensee is authorized to distribute self-luminous products as specified in Condition 10 of this license to persons exempt from the requirements for a license pursuant to 10 CFR Part 30.19, or equivalent provisions of the regulations of any Agreement State.

CONDITIONS

10. The following self-luminous products may be distributed pursuant to this license provided the amount of hydrogen-3 contained in each device does not exceed the amount specified:

Device Model	Maximum Activity per Device
3H Series Compass	120 mCi (4.44 GBq)
J582T Compass	15 mCi (555 MBq)
3H-Tritium Series Knife	60 mCi (2.22 GBq)

11. This license does not authorize possession or use of licensed material.

12. The licensee may distribute only from its facilities located at 100 Aniline Avenue N., Holland, Michigan and 2011 Bailey Street, Dearborn, Michigan.

13. The licensee shall file periodic reports as specified in Section 32.25(c), 10 CFR Part 32.

MATERIALS LICENSE SUPPLEMENTARY SHEET

License Number
21-26460-02E

Docket or Reference Number
030-33020

14. Except as specifically provided otherwise by this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Letter dated January 28, 2003 and application dated January 29, 2003;
B. Registration Certificate No. NR-0210-D-101-E;
C. Facsimile dated April 03, 2003;
D. Facsimile dated April 08, 2003;
E. Facsimile dated June 23, 2003;
F. Facsimile dated July 14, 2003, sent 10:16am;
G. Facsimile addendum dated July 14, 2003, sent 10:28am;
H. Letter and application dated February 8, 2005;
I. Letter dated April 28, 2005;
J. Letter dated August 9, 2005;
K. Letter dated March 1, 2007;
L. Letter dated April 9, 2007;
M. Application dated December 27, 2006;
N. Electronic mail dated November 5, 2008 with attachment dated October 24, 2008;
O. Letter dated May 22, 2009.
P. Letter dated June 17, 2009
Q. Letter dated September 1, 2010

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date September 22, 2010

By J. Bruce Carrico

J. Bruce Carrico
Licensing Branch
Division of Materials Safety and State Agreements
Office of Federal and State Materials and
Environmental Management Programs
Washington, DC 20555

Enclosure 3

CAMMENGA AND ASSOCIATES, LLC

2011 Bailey St.
Dearborn, MI 48124
Phone: (313) 914-7160
Fax: (313) 914-7153

August 31, 2011

GENERAL DISCUSSION

A. Cammenga's new compass model, the "Destinate," is a protractor compass that has been in development for over a year. The idea was borne from several United States Army Rangers, who suggested we design a transparent protractor/baseplate style of compass to add to our offered mix of compasses.
B. US Marines and Rangers currently use protractor compasses on missions involving the need for rapid navigation. The transparent nature of protractor compass allows navigators the ability to place the unit flat on a map and manually trace directional paths while still viewing the coordinates underneath the baseplate itself.
C. The major problem with current protractor models available on the market is the lack of illumination needed for nighttime navigation.
D. Cammenga engineers have been able to incorporate most of the same high quality components used in the Model 3H lensatic compass in the Destinate's design. As a result, the methods for protecting the Tritium vials will be very similar.
E. The tritium vials used in the Destinate will be the same sized vials Cammenga currently uses for it's Model 3H, less one 5 mCi vial. The Destinate will have 3 – 5mCi vials, 2 – 25 mCi vials & 1 – 50 mCi vial. The total H-3 will not exceed 115 millicuries, per compass.
A. The model name for exempt distribution, containing H-3, shall be named as follows:

Model # D3-T Destinate

B. Anticipated annual sales of this model are expected to be 10,000 units. This initial projection of distribution volumes will not require a change of our license regarding the amount of curies distributed annually.
C. The expected useful daytime life of the compass is indefinite. With regards to the sealed sources (H-3 vials), the expected luminous life (night-use) of the compass is directly influenced by the half-life of H-3, which is 12.3 years.
D. Each Compass shall be individually labeled with: "115 mCi ^{3}H," our exempt distribution license # "21-26460-02E", and the model number "D3-T" in accordance with labeling methods specified in the NEUREG requirements.
E. Product quality control procedures will follow those specified in MIL-PRF-10436N unless self-imposed quality procedures are more restrictive.

Enclosure 4

CAMMENGA AND ASSOCIATES, LLC

2011 Bailey St.
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Phone (313) 914-7160
Fax (313) 914-7153

August 31, 2011

A. Comparison of Cammenga & Associates' Lensatic, Magnetic, Military Compass - NSN 6605-01-196-6971 and D3-T Destinate, Protractor/Baseplate, Magnetic, Compass

Compass Element	Current Lensatic Compass	Model D3-T
Fundamental Use	Unmounted with lanyard, hand held	Unmounted with lanyard, to be placed on flat map
Magnetic Standard	Magnetic North pull	Magnetic North pull
Sighting illumination	Two sealed sources, one above and one below site wire	One sealed source at top of baseplate
Dial illumination	Back lighting provided by one sealed source in cup and two under "E" and "W"	Back lighting provided by one sealed source in cup and two under "E" and "W"
Bezel indicator	One sealed source used	One sealed source used
North illumination	One sealed sources used	One sealed source used
Casing	Aluminum	Clear Nylon
Dial Cover	Clear plastic	Clear plastic
Media securing sealed sources	Dow Corning Permanent Silicone Sealant. Continuous use -76° to 400°F	Dow Corning Permanent Silicone Sealant. Continuous use -76° to 400°F

B. **Prototype Testing:** The prototype testing was structured similar to the first article testing required on our current compass NSN 6605-01-196-6971, performed under MIL-PRF-10436N. Tests demonstrating the integrity of the compass, as well as the mounted sealed sources, include the impact durability test, thermo shock, luminosity test, diffusion, contamination test, and more. Each individual sealed source is also tested before installation into any compass – 100% of all vials are soak tested at the manufacturer, as well as 100% of all vials are soak tested at Cammenga & Associates, Inc. before installation into the compass; this assures no leaking or cracked vials. The methods and materials used in mounting the sealed sources into the Destinate compass would be the same methods and materials used in production of our military Lensatic compass, NSN 6605-01-196-6971. The history of methods and materials, dating back to the 1960's, unquestionably establishes a system and performance that has a well-proven track record. Ten prototypes were tested with the proposed sealed sources installed. The individual test description and the results are as follows:

Test #1 – Impact Durability of Vials: Test requirement is to drop compass from height of 100cm onto an unyielding, rigid steel surface. We wanted to satisfy the test and prove durability in a realistic environment; therefore we dropped onto steel and onto concrete. Each compass is to be dropped twice without effort to orient the compass. Our test was

to drop each compass 10 times onto both steel and concrete. Results – all sealed sources remained intact, with no unaided visual evidence of leakage, breaking, checking, shattering, or spalling of the sealed sources.

Test #2 – Thermal Shock (sealed sources only): Subject sealed sources to 2 successive cycles of thermal shock. Cycle begins by immediately placing the sealed sources into -52° ±2° C for 15 minutes. Remove sealed sources from cold environment and immediately place into temperature of 68° ±3° C for another 15 minutes. This constitutes 1 cycle. After the final cycle, allow sources to return to room temperature and examine. Result – no evidence of damage of degradation found.

Test #3 – Contamination: Wipe all exterior surfaces of compass with Whatman-50 filter paper. Determine the radioactive contamination by using a liquid scintillation machine. A removable contamination activity of more than 900 dpm per compass shall constitute failure of this test. Result – each compass tested < 900 dpm.

Test #4 – Diffusion: Submerge the compass into distilled water for 24 hours at 23° ±5°C. The compass shall be removed and 10ml of the water analyzed. If the radioactive content of the water exceeds 3,700 dpm, it shall constitute failure of this test. Result – each water sample tested < 3,700 dpm.

Test #5 – Luminosity Test: The assembled compass shall be examined for dead or dim luminous sources, after it has been dark-adapted for not less than 1 hour. The spectral and luminescent output shall be visually compared to other compasses and sealed sources of known quality. Sources of questionable luminosity shall be retested. Result – all sources passed test.

Test #6 – Engineering/Design: The sealed sources are installed within cavities on the back plate. The depth of the cavities is such that they will contain the vials 100% and in no way will the vials protrude past the top plane of the cavities. The vials are also encapsulated within silicone adhesive. The back plate, when assembled, is flush to the capsule, making it impossible for foreign objects to touch, damage, or break the vials.

NOTE: We also did subsequent, less scientific tests, such as trying to abuse the compass by banging the compass on a desktop, dropping and bending the back plate only, uninstalling the back plate and reinstalling the plate numerous times, with and without tools. All testing resulted in favorable outcomes.

The tests performed, as listed above, demonstrates that the product design will maintain its integrity when subject to conditions of normal use as well as extreme use and likely accident conditions.

CAMMENGA & ASSOCIATES, LLC.

FINAL INSPECTION

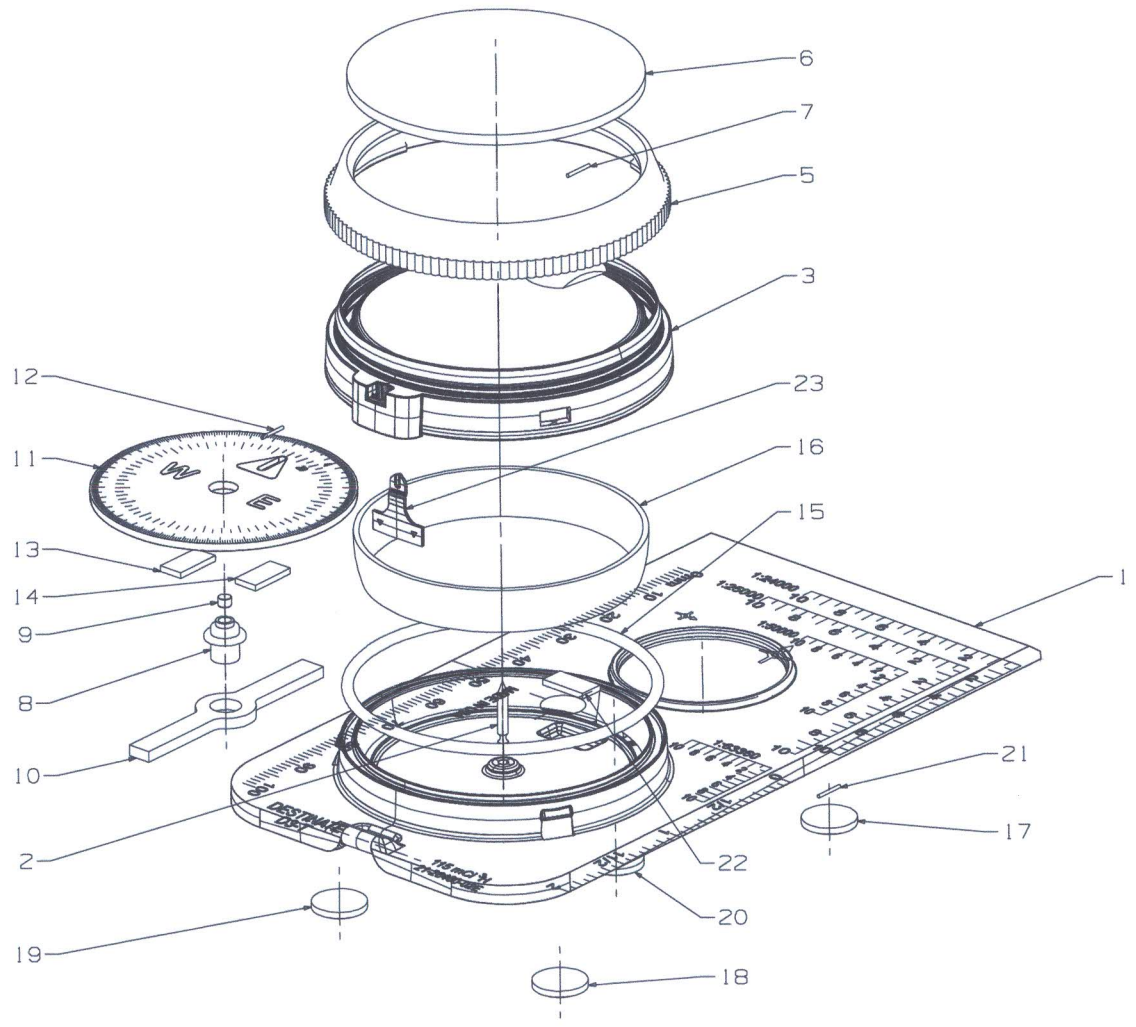
Prototype Testing:

Today's Date: July 21, 2011 ~~Lot#~~ NA ~~Order #~~ 10 units

1. Contractor: Cammenga & Associates, Inc.
2. Contract Review Check List: Protractor - D3-T Destinate
3. Activity: Final Inspection
4. Operation/Location: Test Area
5. Stamped #
6. Accept/Reject 0/1

A	B	C	D Lot Size	E Sample Size	G Disposition	H Pouch Visual	I Lanyard 60"+- 2"	J Instruction Card	K Compass Visual	L Contamination	M Shock	N High/Low Temperature	O Damping	P Freedom of Rotation	Q Compass error/ Mag. Performance	R Friction Error	S Luminosity	T Diffusion & Leakage
1			10	10	10	NA	✓	NA	✓	✓	✓	P P	3.45	✓	✓	✓	✓	P
2							✓		✓	✓	✓	P P	4.15	✓	✓	✓	✓	P
3							✓		✓	✓	✓	P P	5.12	✓	✓	✓	✓	P
4							✓		✓	✓	✓	P P	3.98	✓	✓	✓	✓	P
5							✓		✓	✓	✓	P P	4.64	✓	✓	✓	✓	P
6							✓		✓	✓	✓	P P	4.32	✓	✓	✓	✓	P
7							✓		✓	✓	✓	P P	3.68	✓	✓	✓	✓	P
8							✓		✓	✓	✓	P P	4.02	✓	✓	✓	✓	P
9							✓		✓	✓	✓	P P	3.52	✓	✓	✓	✓	P
10							✓		✓	✓	✓	P P	4.33	✓	✓	✓	✓	P

Attachment 1 (page 1)



LEGACY DOCUMENT NO.	
DIMENSIONAL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE	
INCHES	0.0 ± 0.01 0.00 ± 0.002 ANGULAR ± 2' 30"

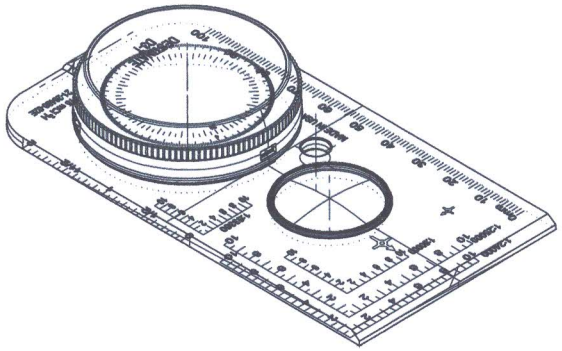
Parts List:

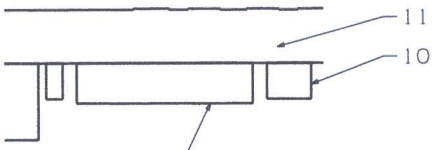
7050.001 Assembly-Protractor Compass
1. 7051.001 Base Plate-Protractor Compass
2. 1320.001 Pivot
3. 7052.001 Lens-Protractor Compass
4. 7053.001 Bezel Asm-Protractor Compass
5. 1160.001 Bezel
6. 7054.001 Crystal-Protractor Compass Bezel
7. 1270.001 Vial-Small Tritium
8. 1310.001 Jewel Asm-Hub and Mount
9. MS27045-14 Jewel-Bearing
10. 1230.001 Magnet
11. 4480.001 Assembly-Dial with Tritium
12. 1270.001 Vial-Small Tritium
13. 1280.001 Vial-Small Tritium
14. 1280.001 Vial-Small Tritium
15. 7055.001 "O"-Ring-Base plate to Lens
16. 7056.001 Damping Ring
17. 7057.001 Pad-Foot
18. 7057.001 Pad-Foot
19. 7057.001 Pad-Foot
20. 7057.001 Pad-Foot
21. 1270.001 Vial-Small Tritium
22. 1280.001 Vial-Small Tritium
23. 1300.001 Detent-Spring Bezel

VERS.	CHANGE	ZONE	ECM NO.	DATE	INT.
00	RELEASED FOR PRODUCTION	-,-	XXXXXXXX	XXXXXX	.

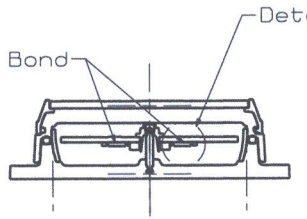
MATERIAL:	DESIGN REF:		SCALE: 1:1
	PROJECT:	THIRD ANGLE PROJECTION	
DR.: M. HALL	DEV ECM:		DATE: 08/25
CK.: R. HENDERSON	COST ECM:	DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994	
APPR.: R. HENDERSON	PROD. ECM:		
EXPLODED VIEW		UNITS: IN	SIZE: C
CAMMENGA		MATERIAL MASTER NO	REV
		PROTRACTOR COMPASS 7050.001 PAGE 1 OF 3	

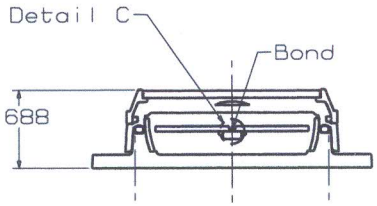
Attachment 1 (page 2)

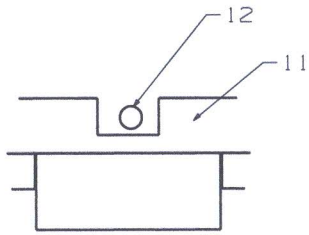




DETAIL E
SCALE 1 TO 1







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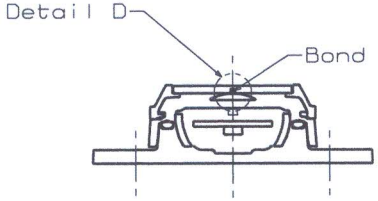
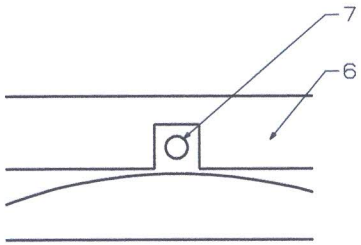




DETAIL D
SCALE 1 TO 1

Notes:
1. Using #734 Dow Corning Permanent Silicone Sealant Continious use -76° to 400° to mount self-luminous source.
   A. Bond parts 12 to part 11 and fill cavity with adhesive. Place part 17 over cavity to enclose light source.
   B. Bond part 7 to part 6 and fill cavity with adhesive.
   C. Bond part 13 and 14 to part 11 and fill cavity with adhesive. (Ref: Two places)

2. Handling and attachment are to be in accordance with U.S. Nuclear Regulatory Commission License No. 21-26460-02

LEGACY DOCUMENT NO.	
DIMENSIONAL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE	
INCHES	0.0 ± 0.01 0.00 ± 0.002 ANGULAR ± 2' 30"

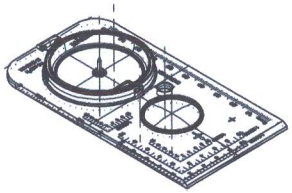
VERS.	CHANGE	ZONE	ECM NO.	DATE	INT.
00	RELEASED FOR PRODUCTION	-,-	XXXXXXXX	XXXXXX	.

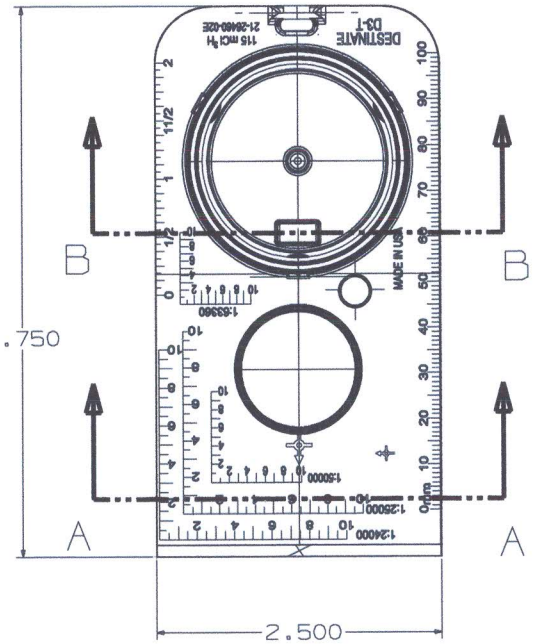
MATERIAL:	DESIGN REF:		
	PROJECT:	THIRD ANGLE PROJECTION	SCALE: 1:1
DR.: M. HALL	DEV ECM:		DATE:
CK.: R. HENDERSON	COST ECM:	DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994	08/25
APPR.: R. HENDERSON	PROD. ECM:		
METHOD OF ATTACHEMENT		UNITS: IN	SIZE: C
CAMMENGA		MATERIAL MASTER NO: PROTRACTOR COMPASS 7050.001 PAGE 2 OF 3	REV

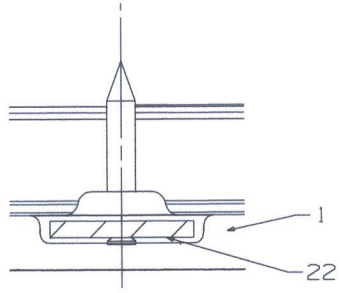
LEGACY

DIMENSIONAL
OTHERWISE

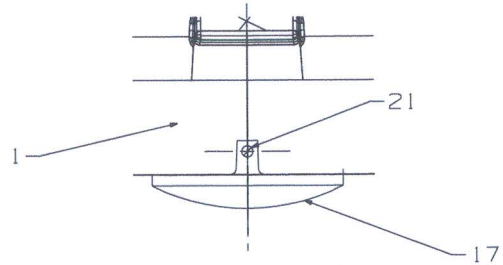
INCHE







SECTION B-B
SCALE 4:1



SECTION A-A
SCALE 4:1

1. Using #734 Dow Corning Permanent Silicone
   Continious use -76° to 400° to mount self
source.
   A. Bond parts 21 to part 1 and fill cavity
      adhesive. Place part 17 over cavity to
      enclose light source.
   B. Bond part 22 to part 1 and fill cavity
      adhesive.

2. Handling and attachment are to be in acco
   with U.S. Nuclear Regulatory Commission
   License No. 21-26460-02

VERS.	CHANGE	ZONE	EC
00	RELEASED FOR PRODUCTION	-.-	XX

MATERIAL:	DESIGN REF:
	PROJECT:
DR.: M.HALL	DEV ECM:
CK.: R. HENDERSON	COST ECM:
APPR.: R. HENDERSON	PROD. ECM:

METHOD OF ATTACHEMENT

CAMMENGA

MATERIAL
PROTRAC
7C
PAG

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number 8769 0019 8698

DS

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date 8-31-11 Sender's FedEx Account Number 193308368

Sender's Name Christopher Korchon Phone 313-914-7160

Company Camuvega Company, LLC

Address 7011 Bailey St.

Dept./Floor/Suite/Room

City Dearborn State MI ZIP 48124

2 Your Internal Billing Reference

3 To

Recipient's Name Dir. of Industrial + Medical Nuclear Safety Phone

Company Office of Nuclear Materials Safety + Safeguards

Address White Flint N. We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address 11555 Rockville Pike Use this line for the HOLD location address or for continuation of your shipping address.

City Rockville State MD ZIP 20852

01 ☐ HOLD Weekday FedEx location address REQUIRED. **NOT available for** FedEx First Overnight.

31 ☐ HOLD Saturday FedEx location address REQUIRED. **Available ONLY for** FedEx Priority Overnight and FedEx 2Day to select locations.

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

06 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

01 ☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

05 ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

49 ☐ **NEW** FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.

03 ☒ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

06 ☒ FedEx Envelope* 02 ☐ FedEx Pak* 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☐ Other

6 Special Handling and Delivery Signature Options

03 ☐ **SATURDAY DELIVERY**

☒ No Signature Required — Package may be left without obtaining a signature for delivery.

10 ☐ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

☐ No 04 ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. 06 ☐ Dry Ice Dry Ice, 9, UN 1845 ..... x ..... kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

1 ☒ Sender Acct. No. in Section 1 will be billed. 2 ☐ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages Total Weight ..... lbs. Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

8769 0019 8698

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